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EXAMINER

MOY, ANNIE

ART UNIT

PAPER NUMBER

4147

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,148	Applicant(s) JOHNSON ET AL.	
	Examiner ANNIE MOY	Art Unit 4147	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 10 rejected under 35 U.S.C. 101 as being a processor program product. The claim do not define the program product being part of a statutory manufacture or machine, nor do they define the program product being used executed by a processor. The specification does not have any limit definition to the program product.

Since a processor program product is merely a set of instructions capable of being executed by a processor, the processor program itself is not a process, machine, manufacture, nor composition of matter (i.e. tangible “thing”), and therefore does not fall within one of the four categories of 35 U.S.C. 101. Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory.

Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claim 1-11 rejected under 35 U.S.C. 102(e) as being anticipated by Guo-Fu Zhou (U.S. 7,126,577 B2 “Zhou” herein after).

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Zhou discloses “An electrophoretic display unit (100) comprising: an electrophoretic display panel (60) comprising pixels (11);”(See Abstract lines 1-3); “a first counter electrode (16) coupled to pixels (11) in a first portion (66) of the electrophoretic display panel (60); a second counter electrode (17) coupled to pixels (11) in a second portion (67) of the electrophoretic display panel (60),” (See column 4 lines 52-54 and column 6 lines 36-31, i.e. there are crossing of row and column electrode, so there is a plurality of pixels and two counter electrodes which connects to a processor that connects to a display); “and a controller (20) for controlling a supply of a first signal (V.sub.16) to the first counter electrode (16) and a supply of a second signal (V.sub.17) different from said first voltage signal (V.sub.16), to the second counter electrode (17).” (See column 6 lines 39 to 47, i.e. there is a processor that controls the sending of positive/negative voltage supplies to the two different counters).

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As for claim 2, in view of claim 1, Zhou discloses “the first and second signals (V.sub.16, V.sub.17) are alternating voltage signals having substantially opposite phases.” (See column 6 lines 64-67 and column 7 lines 1, i.e. both signal has alternating polarity and the phases are opposite).

As for claim 3, in view of claim 1, Zhou discloses “data driving circuitry (30) for supplying a data pulse (D.sub.1-D.sub.12) to a pixel electrode (5) of a pixel (11) via a switching element,” (See figure 2 column 4 lines 55-56 and lines 64-66, i.e. a column driver provides data signals to the data electrodes which is feed to the pixel electrode); “the controller (20) being adapted to control the data driving circuitry (30) for supplying a setting signal (S.sub.1-S.sub.4) to the pixel electrode (5) for reducing a voltage across the pixel (11) before a transition of at least one of the first and second voltage signals (V.sub.16, V.sub.17).” (See column 6 lines 39-47, i.e. the processor which connects to the data drive circuit see Figure 2 item 10 and 15. Preset voltages are set and supplies to the electrodes which has positive a negative voltages to help the transitions).

As for claim 4, in view of claim 1, Zhou discloses “the panel (60) comprising a data electrode (31, 32, 33) coupled to the data driving circuitry (30) and coupled via switching elements to pixels (11) in only one of the first and second portions (66, 67).” (See Figure 2 items 11, 10 and 15 and column 5 lines 59 – 63, i.e. the column/data driver is connected with the processor and both of them are sending signals to two different groups which are connected to the pixels).

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As for claim 5, in view of claim 1, “the controller (20) being adapted for controlling data driving circuitry (30) to provide: shaking data pulses (Sh.sub.0, Sh.sub.1, Sh.sub.2);” (See column 5 lines 36-38, i.e. preset pulses are generated by the processor); “one or more reset data pulses (R);” (See column 5 lines 65-66, i.e. reset pulses are used as an alternative way to take care of the flickering); “and one or more driving data pulses (Dr); to the pixels (11).” (See column 5 lines 36-38, i.e. preset pulses are generated by the processor).

As for claim 6, in view of claim 1, Zhou discloses “the controller (20) being adapted for controlling the data driving circuitry (30) to provide first shaking data pulses (V.sub.16-V.sub.E1, V.sub.16-V.sub.E3) to the first portion (66) and second shaking data pulses (V.sub.17-V.sub.E2, V.sub.17-V.sub.E4) to the second portion (67), the first and second shaking data pulses having substantially opposite amplitudes.” (See column 5 lines 55-64, i.e. the first preset signal is feed to the first group and the second one to the second group. It is inherent that when the signals are in opposite phases their amplitude will be opposite too).

As for claim 7, in view of claim, Zhou discloses “the controller (20) being adapted for controlling the data driving circuitry (30) to provide one or more first reset data pulses to the first portion (66) and one or more second reset data pulses to the second portion (67), the first and second reset data pulses having substantially opposite amplitudes.” (See column 5 lines 65-66, i.e. reset pulses are used as an alternative way to take care of the flickering, so the reset pulse can do the same thing as the preset pulse).

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As for claim 8, in view of claim 1, Zhou discloses “a storage medium for storing information to be displayed.” (See column 7 lines 47-49, i.e. the display devices has a RAM to store information needed for the display).

Regarding claim 9, Zhou discloses “A method for driving an electrophoretic display unit (100) comprising an electrophoretic display panel (50,60) which comprises pixels (11), a first counter electrode (16) coupled to pixels (11) in a first portion (66) of the electrophoretic display panel (60), and a second counter electrode (17) coupled to pixels (11) in a second portion (67) of the electrophoretic display panel (60),” (See column 4 lines 52-54 and column 6 lines 36-31, i.e. there are crossing of row and column electrode, so there is a plurality of pixels and two counter electrodes which connects to a processor that connects to a display. The counter electrodes are connected to two outputs , which the signals are later sent to the display); “the method comprising the steps of supplying a first signal (V.sub.16) to the first counter electrode (16) and a second signal (V.sub.17), different from the first signal (16), to the second counter electrode (17).” (See column 6 lines 39 to 47, i.e. there is a processor that controls the sending of positive/negative voltage supplies to the two different counter electrodes. It is two different signals).

Regarding claim 10, Zhou discloses “A processor program product for driving an electrophoretic display unit (100) comprising pixels (11), a first counter electrode (16) for a first portion (66) of the electrophoretic display panel (60), and a second counter electrode (17) for a second portion (67) of the electrophoretic display panel (60),” (See column 4 lines 52-54 and column 6 lines 36-31, i.e. there are crossing of row and column electrode, so there is a plurality of pixels and two counter electrodes which connects to a processor that connects tot a display.

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The counter electrodes are connected to two outputs , which the signals are later sent to the display); “the processor program product comprising the functions of supplying a first signal (V.sub.16) to the first counter electrode (16) and a second signal (V.sub.17), different from the first signal (V.sub.16), to the second counter electrode (17).” (See column 6 lines 39 to 47, i.e. there is a processor that controls the sending of positive/negative voltage supplies to the two different counter electrodes. It is two different signals).

Regarding claim 11, Zhou discloses “A controller for an electrophoretic display unit (100) comprising: an electrophoretic display panel (60) comprising pixels (11), a first counter electrode (16) coupled to pixels (11) in a first portion (66) of the electrophoretic display panel (60), a second counter electrode (17) coupled to pixels (11) in a second portion (67) of the electrophoretic display panel (60),” (See column 4 lines 52-54 and column 6 lines 36-31, i.e. there are crossing of row and column electrode, so there is a plurality of pixels and two counter electrodes which connects to a processor that connects to a display. The counter electrodes are connected to two outputs, which the signals are later sent to the display. The processor controls where the signals are going); “the controller (20) being adapted for controlling a supply of a first signal (V.sub.16) to the first counter electrode (16) and a supply of a second signal (V.sub.17) different from said first voltage signal (V.sub.16), to the second counter electrode (17).” (See column 6 lines 39 to 47, i.e. there is a processor that controls the sending of positive/negative voltage supplies to the two different counter electrodes. It is two different signals).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNIE MOY whose telephone number is (571)270-7175. The examiner can normally be reached on Monday- Friday 8-4pm CT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu-Oanh Bui can be reached on 571-272-7291. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KIEU-OANH BUI/
Supervisory Patent Examiner, Art Unit 4147

ANNIE MOY
Examiner
Art Unit 4147